ARMY SMALL BUSINESS INNOVATION RESEARCH PROGRAM

Major Robert Miceli
Army SBIR Deputy Program Manager
SWIFT Tour 2004

MISSION STATEMENT

The Army SBIR program is designed to provide small, high-tech businesses the opportunity to propose innovative Research and Development solutions in response to critical Army needs.

"Transformation through Innovation"

Army SBIR Process

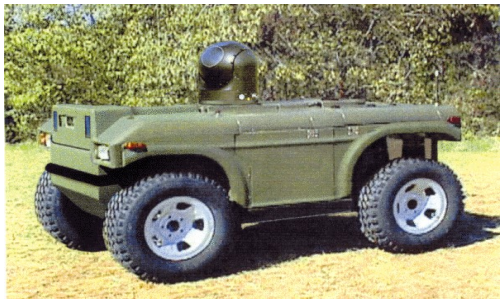
Phase I

Feasibility Study
$70K, 6 Months

$50K Option upon Phase II selection (Gap Funding)

10% of proposals submitted are selected

Phase II



Prototype Development
$730K, 2 Years
***Phase II Plus* - $250K matching funds,**
1 Year

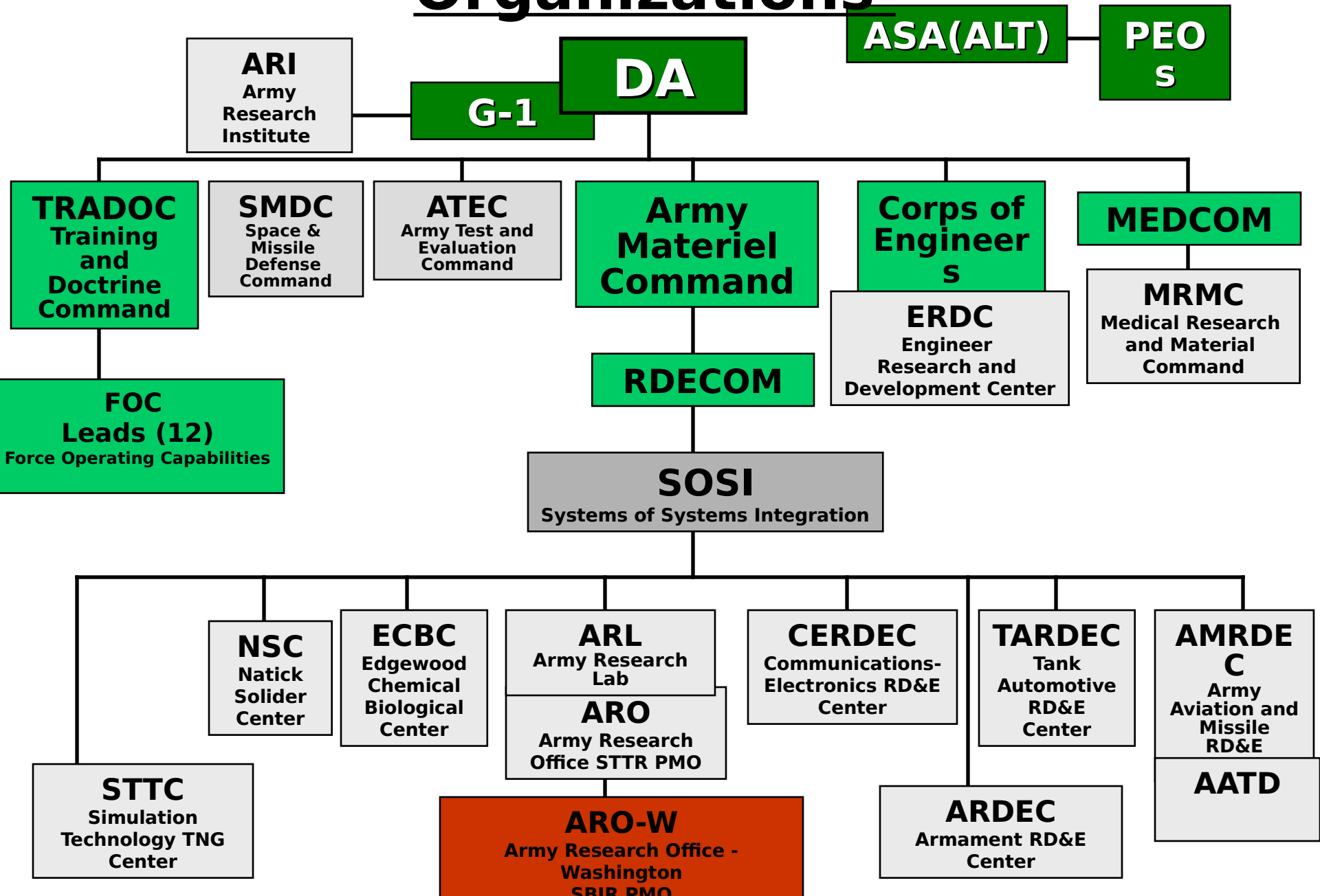
50% of invited proposals are selected

Phase III

Commercialization
Transition to Army, other federal program, or Private Program
No SBIR Funds…

Phase I + Phase II+ Phase II Plus = $1.1M – all projects are funded via

SBIR Participating Army Organizations

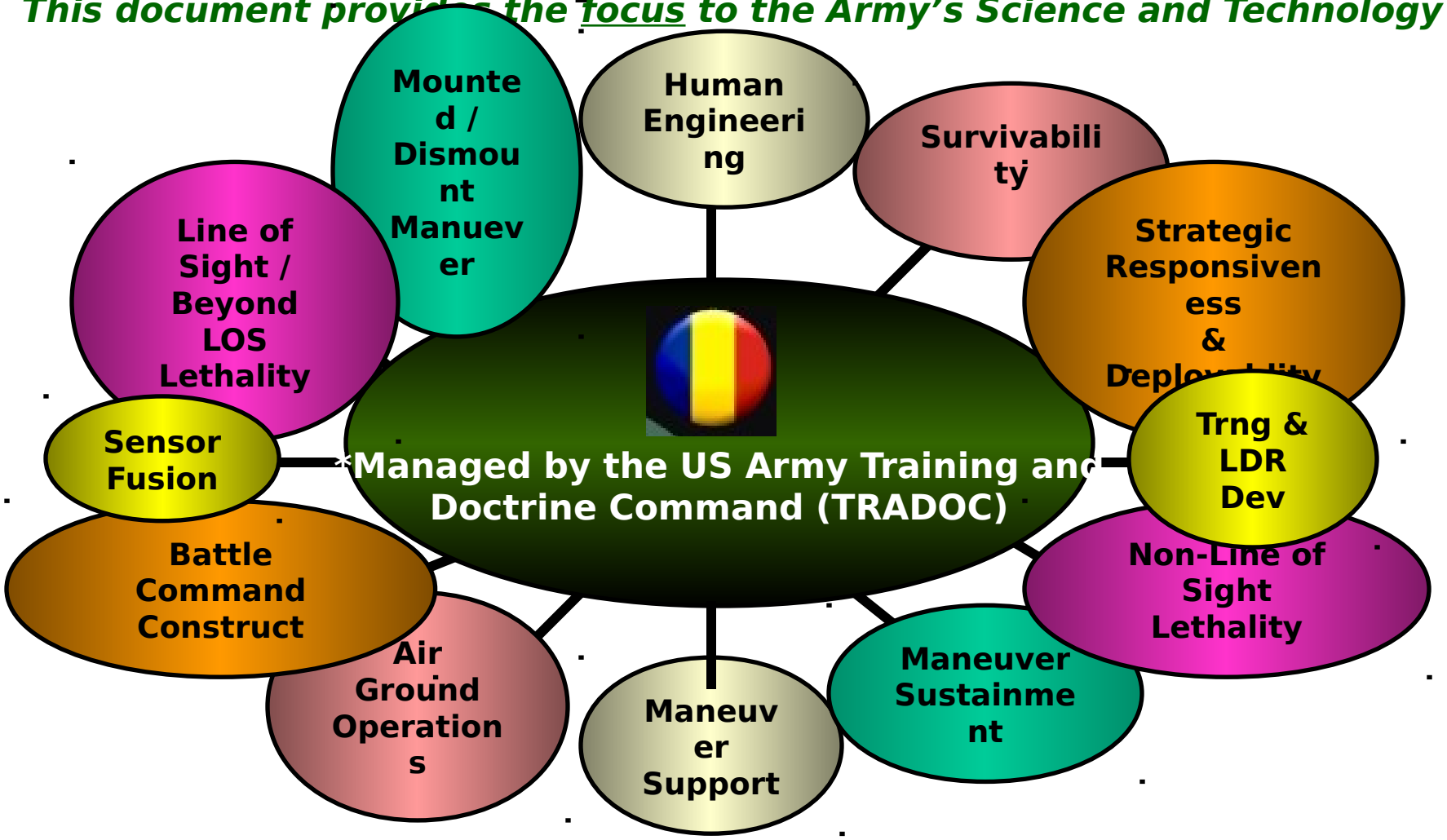


Key Dates for 05.2 Solicitation

Pre-Solicitation Period (Internet)	**2 May – 14 Jun 05**
Solicitation Opens	**15 Jun 05**
Phase I Proposals Due (25 Pages)	**15 Jul 05**
Award Notification	**mid - Oct 05**
Contract Award	**mid - Nov 05**

Force Operating Capabilities

This document provides the focus to the Army's Science and Technology Ma



- **For more info on Force Operating Capabilities visit:**
  www.tradoc.army.mil/tpubs/pams/p525-66.htm

Challenges for Current Force

- Improve Soldier Protection in Counter-Insurgency Environment
- Provide Prototype Network Enabled Battle Command to Current Force
- Provide Responsive, Networked, Precision Fires to the Current Force.
- Protect the Force in Non-Contiguous Battlespace Operations
- Improve Non-Lethal Capabilities for the Current Force
- Improve Ability of Current Forces to Conduct Joint Urban Operations
- Expand HUMINT Capabilities
- Increase Ability and Speed of Analysis and Information

Future Required Capabilities

- Enhance Soldier Protection
- Provide Effective C^2 Throughout All Phases of Ops; Any Location Enhance Platform Protection
- Provide C^4 Architecture – Fully Functional in all Conditions, LOS/NLOS
- Provide Modular, Tailorable Forces Rapidly Deployable in Mission Config.
- Lethality Overmatch – Any Enemy LOS/BLOS/NLOS, All Conditions
- Allow Train as you Fight, Operating Similar at both CTCs & Home Station
- Provide Superior ISR – Modular, Scalable, Tailored Battlefield

Army Evaluation Process

- Proposals are never compared to each other – evaluated on thei own merits (as submitted)

- Evaluation criteria

  - Scientific & Technical merit and feasibility; and effectiveness of the proposed work plan

  - Experience, qualifications and facilities

  - Commercial merit and feasibility

- The Army uses a two- tier evaluation process

  - Laboratories and Centers that wrote the topics perform first tier evaluation

  - Proposals of the highest quality are forwarded to a central board of senior scientists and technologists (Technology Area Chiefs)

  - The Technology Area Chiefs make the final selections based on funding and Army requirements

Army SBIR Statistics

	FY99	FY00	FY01	FY02	FY03	FY04
Funding	$106M	$110M	$136M	$151M	$165M	$228M
Number of Topics published	169	167	180	252	243	258
Phase I Proposals	1872	1603	2055	3139	3885	
Phase I Awards	198	249	317	354	352	~*350
Phase II Awards	108	139	151	180	222	237

* Estimated –
Phase I's selected in November 2004

Army SBIR Program

- ***One Annual Solicitation*** **(05.2 Solicitation: 15 Jun – 15 Jul 05)**
- **Aligns topics with Army Science and Technology Master Plan and user needs (Future Force/Future Combat Systems)**
- **Reflects Logistics Transformation Agency, TRADOC, and Army Acquisition Programs (PM/PEOs) Interests**
- **One Phase II Process (Invited and Fast Track)**
- **Complies with OSD requirements to accelerate contract awards (Phase I - 4 Months, Phase II - 6 Months)**
- **Includes performance incentives - Phase II Quality Awards**

STTR - Program Overview

Encourage collaboration between Small Business and:

- **Universities**
- **Non Profit Research Institutions**
- **FFRDCs**

Commercialization Marks Success

Phase III
Commercialization
Funding from non-SBIR/STTR public or private sources

Army Topics

- **Broad in scope**
- **Based on Army critical technologies**
- **Emphasize potential Commercialization**
- **Dual Use**

Phase II
R&D
2 Years
prior: $500K
Starting FY04: $750K

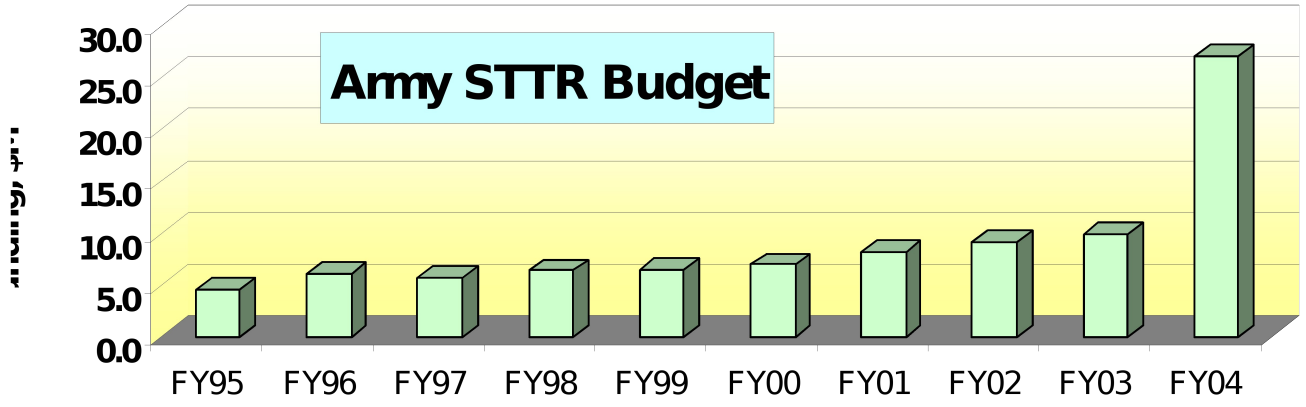
Program Goals:

- **Rapidly move innovative concepts, emerging technologies, and cutting-edge research out of the laboratory and into the commercial marketplace**
- **Stimulate technological innovation**
- **Increase small business participation in Federal R&D**
- **Increase private sector commercialization of technology-developed, through Federal R&D**
- **Foster and encourage participation by woman own and socially and economically disadvantaged small businesses**
- **Provide strong incentives for collaborations between small firms and research institutions**

Phase I
Feasibility Study
6 Month Performance
$100K

STTR –Summary of Projects

Fiscal Year	Budget, $M	#Topics	#Ph I Proposals	#Ph I Awards	#Ph II Awards
FY04	27.30	28	253	62	36
FY03	9.90	29	243	41	18
FY02	9.10	19	58	42	14
FY01	8.18	9	30	19	10
FY00	6.91	8	50	17	11
FY99	6.35	9	64	9	5
FY98	6.32	4	22	6	15
FY97	5.65	12	93	11	9
FY96	5.98	11	138	21	17
FY95	4.56	4	48	10	0



Additional Information / Questions

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Army Research Office Washington

Army Research Office - Washington (ARO-W) facilitates the rapid transfer of innovative concepts and technology developments to our warfighters.

Acting as ARO's liaison office in the Washington area, ARO-W works across the entire spectrum of Army and Defense research and development activities to streamline the Army acquisition process, identify transition opportunities, and establish the relevance of the Army science and technology program as executed by ARO and the Army Materiel Command.

Done
Internet

Army SBIR Success - Vehicle Digital Compass (TACNAV)

KVH Industries, Inc., Middletown, RI

U.S. Army Armaments Research, Development and Engineering Center (Picatinny Arsenal, NJ

Modern warfare requires precise situational awareness. To be effective, vehicles, weapon systems, individual soldiers, and commanders must always know exactly where they are in time and space. This task is extremely difficult because of longer lines of movement and communication, metal in vehicles disturbs the magnetic field that navigation tools use for compass readings, and effective GPS jamming technology.

The solution created by KVH uses a tri-axial magnetometer to identify and correct for distortions attributed to the magnetic signature of the vehicle. The KVH digital compass senses the earth's magnetic field and measures the vehicle's unique magnetic vehicle's unique magnetic distortion. This data is used to adjust the heading information as necessary to compensate for the

- **TACNAV is extensively used by the U.S. Army in Afghanistan and Iraq.**
- **KVH produced in excess of 8,000 military digital compass systems currently in use and is the most widely fielded tactical navigation system in the world. They have been selected for the military vehicles of the U.S., Canada, U.K., France, Germany, Italy, Sweden, Australia, New Zealand, Saudi Arabia, Malaysia, and Taiwan.**
- **Current revenues exceed $42M from products resulting from this SBIR**